In re Patent Application of:
AMMAR ET AL.
Serial No. **10/647,681**
Filing Date: **August 25, 2003**

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REMARKS

Claims 21-40 remain in this application. Claims 1-20 have been previously cancelled in a Preliminary Amendment. Claims 21-23, 25, 26, 28, 30, 32, 33, 35, 36, 38, and 39 have been amended.

Applicants also submit a new sheet 1 of 2 sheets showing FIG. 1, which has been corrected to show the cross-hatching with alternating thick and thin lines, and not just the thin lines as in the previous drawing.

Applicants thank the Examiner for the detailed study of the application and prior art. At the outset, Applicants note that the cited prior art, i.e., U.S. Patent No. 6,077,130 to Hughes et al. (hereinafter "Hughes") is directed to a device-to-board electrical connector formed as an integral member that has three different terminals, and contained in a housing to connect a first printed circuit board, a second printed circuit board, and a battery pack. This connector is a complicated structure forming three different terminals and is described in column 2, starting at line 50 through column 3 at line 6:

> "Each terminal comprises a first connection section 22, a second connection section 24, and a third connection section 26. The first connection section 22 comprises a base 28 having a mounting portion 30 in the form of lateral extensions that engage in mounting slots 32 of the housing proximate the first circuit board mounting face 10, for receiving the extensions 30 in an interference fit. The mounting extensions 30 may be provided with retention barbs (not shown) for digging into the plastic housing for more secure retention. An embossed rib 34 extending between the extensions 30 further stiffens the mounting portion 30. From the mounting portion 30

> extends a surface mount tab 36 for solder connection to circuit traces on the first circuit board 18. The solder connection of the terminal surface mount tab 36 also provide a mechanical attachment of the connector to the first board."

The structure is specifically directed to interconnecting a battery pack to stacked printed circuit boards.

The present claimed invention, on the other hand, is a more simple structure that is adapted for only transferring high frequency radio frequency signals between two printed circuit boards. It is an advantage over using subminiature coaxial connectors that are semi-precision, subminiature devices used with coaxial cables, including flexible and semi-rigid cabling. The present claimed invention can transfer high frequency, radio frequencies up to 4 GHz or more with low losses. It also allows the mixing of high frequency and DC signals in the same surface mount, pressure contact connector as a clip member without impacting performance. Adjacent clip members or pins in the same or different housing member can interconnect ground lines positioned on opposing sides of a radio frequency signal line to allow isolation and improve return loss as shown in the graph of FIG. 3.

The present claimed invention provides a conductive clip member <u>that has only two opposing ends for making electrical contact between two boards</u>, without the use of connecting wires between the boards, such that the clip member ends engage respective boards. Each clip member is received within a clip receiving slot of a housing member. The clip member includes only the opposing free ends that extend beyond the housing member, which make the electrical contact to the

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circuit boards. Thus, the present claimed invention can only make two electrical contacts, as compared to the more complicated Hughes device, which makes three electrical contacts using a complicated member. The conductive clip member of the present invention, however, is longitudinally extending and bent over itself and has only two opposing ends, instead of two branching arms forming three terminals as in Hughes.

It is clear that the present claimed invention is a much different structure and used for a different purpose and method from Hughes, which is not directed to transferring RF signals as in the present claimed invention. Instead, Hughes is directed to connecting two circuit boards and a battery, and transferring DC signals, and not RF signals for a primary purpose.

Applicants contend that the present case is in condition for allowance and respectfully requests that the Examiner issue a Notice of Allowance and Issue Fee Due. If the Examiner has any questions or suggestions for placing this case in condition for allowance, the undersigned attorney would appreciate a telephone call.

Respectfully submitted,

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